03 08 12 06	LMP	Yes, that backside doesn't look good at all.
03 08 12 10	CC	Roger.
03 08 12 15	LMP	That's relatively speaking, of course.
03 08 12 18	CC	Of course.
03 08 18 52	CC	Apollo 8, Houston.
03 08 18 53	CMP	This is Apollo 8.
03 08 18 56	CC	Roger, Jim. We have you on the high-gain antenna. We'd like you to take the DSE and dump it over.
03 08 19 05	CMP	Roger, Houston. Are you going to use our computer to update our state vector?
03 08 19 34	CC	That's affirmative, Jim. We'd like to - stand by one, and I'll tell you when to go to POO and ACCEPT.
03 08 19 45	CMP	Roger. Then I'll work my 52 around your ...
03 08 20 05	CC	Jim, would you please go to POO in ACCEPT, and we'll send you a P27 and run a state vector update.
03 08 20 12	CMP	Roger. You have POO in ACCEPT.
03 08 20 16	CC	Thank you.
03 08 20 36	CMP	Houston, this is Apollo 8. We have a little piece of useful information if you're interested in deliberating over it.
03 08 20 46	CC	Go ahead. Say again.
03 08 20 51	CMP	Roger. Our first control point is very near the terminator, and as the optics were tracking it, I had occasion to watch the sun come up. And at about 2 minutes before sunrise, you get - the limb begins to brighten up into sort of a fine white

haze, a fine glow completely over the space just behind the limb.

03 08 21 23 CC Roger. I understand. About 2 minutes before the sun comes up, you get a fine white haze radiating out from behind the limb. How far out does it extend?

03 08 21 34 CMP It goes up quite a ways. It takes a fan shape, unlike the sunrise on earth where the atmosphere affects it. This just sort of is a complete haze all over the local area. It's concentrated at the exact spot where the sun comes up at ignition and then goes away from the sun spots. Very interesting.

03 08 21 54 CC Thank you, Jim. Thank you.

03 08 22 36 CC Apollo 8, Houston. We're standing by with your map and TEI 7 updates.

03 08 22 48 CMP Stand by.

03 08 22 54 CC Apollo 8, Houston. You can go back to BLOCK with your computer.

03 08 23 02 CMP Roger.

03 08 23 31 LMP Okay, Mike. We're ready for the map update and then the TEI.

03 08 23 38 CC Okay. When you get your - before you get your map book out, the Houston COMM TECHS have got a little word for an old ex-CAP COMM. They say they consider you in NONREMOTE. Over.

03 08 23 54 LMP Not permanently, I hope.

03 08 23 59	CC	Okay. Your map update for REV 6/7: LOS 80:57:24, sunrise 81:06:57, prime meridian 81:13:02. Are you with me?
03 08 24 29	LMP	You cut out after the prime meridian. I got it, but not AOS.
03 08 24 33	CC	AOS 81:43:05, sunset 82:19:54. Remarks: IP-1 PCA for B-1 82:07:39, and now I've got four more times for you which - acquisition times for when various things come over the horizon. Over.
03 08 25 09	LMP	Roger. Go ahead.
03 08 25 12	CC	Okay. Control point 1, acquisition time 81:09:05; control point 2, acquisition time 81:21:48; control point 3, acquisition time 81:43:17; B-1 acquisition time 82:03:54. And I say again all those ACQ times are when they first come over the horizon. Over.
03 08 25 54	LMP	Roger. Copy, Houston. In about 2 seconds, I'll be ready for the TEI.
03 08 26 01	CC	Alright.
03 08 26 13	LMP	I'm ready.
03 08 26 16	CC	TEI 7, SPS/G&N - stand by one, Bill.
03 08 26 55	LMP	Just a matter of general interest, Houston: everybody is feeling good, and the CDR is taking a snooze.
03 08 27 01	CC	Roger. Glad to hear it. We were just talking about a water dump down here. We've got one coming up, and it looks like on this REV prior to the time

around LOS or just prior to LOS, would be a convenient time to do it. Do you concur?

03 08 27 20 LMP Okay. We will. Down to 25 percent again?

03 08 27 24 CC That's affirmative, and we'd also be interested in any comments about what these various dumps have done to your optics, if anything, and how long the effects last after a dump.

03 08 27 38 LMP Don't seem to have done anything to the optics, but they've definitely got in some of the windows. There are a few little chunks of ice on window number 1, which is nearest the vent, and also on window number 5 a little bit; windows 2 and 4 remain amazingly clear.

03 08 28 11 CC Roger. Thank you, Bill, and I'm ready to resume the PAD when you are.

03 08 28 19 LMP Okay. Press on with the weight.

03 08 28 22 CC Alright. Weight 45701, minus 040, plus 157 083 18 2080, plus 32346, minus 01168, plus 05730. Are you with me so far? Over.

03 08 29 28 CC Apollo 8, Houston. Over.

03 08 29 33 LMP Go ahead, Mike.

03 08 29 35 CC Roger. I got down through DELTA-V, minus X, minus Y, and minus Z. Did you copy those? Over.

03 08 29 44 LMP No, I didn't read a word. I'm still waiting for the weight.

03 08 29 49 CC Roger. Let's go back to the weight: 45701, minus 040, plus 157. Are you with me? Over.

03 08 30 09	LMP	Sounds good.
03 08 30 11	CC	Okay. GETI 083 18 2080, plus 32346, minus 01168, plus 4 - correction, plus 05730. Are you with me? Over.
03 08 30 52	LMP	Roger.
03 08 30 53	CC	Thank you. 179 009 001, not applicable, plus 00187 32870 307 32676 42 0880 253 033, down 121, left 27, plus 0790 minus 16500 129 73 36238 146 4414; same north set Sirius and Rigel, roll 129, pitch 155, yaw 010, four quads for 15 seconds, horizon on the 2-degree mark at P ignition. Over.
03 08 32 53	LMP	Roger. GETI 7 SPS/G&N: 45701, minus 040, plus 157 08318 2080, plus 32346, minus 01168, plus 05730 179 9 - correction, 009 001, NA. Are you with me?
03 08 33 28	CC	Yes, I'm with you, Bill.
03 08 33 32	LMP	Plus 00187 32870 307 32676 32 - correction, 420880 253033, down 121, left 27, plus 0790, minus 16500 12973 36238 146 44 14; same north set Sirius and Rigel, 129 155 010; four-jet, 15 seconds, 2 degrees, now horizon and peak.
03 08 34 26	CC	That's all correct.
03 08 39 12	CC	Apollo 8, Houston. Over.
03 08 39 18	LMP	Go ahead, Houston.
03 08 39 20	CC	Roger. You got your DSE back, and you are GO for the next lunar orbit. Over.

03 08 39 27	LMP	Roger. How far did you want us to dump that water?
03 08 39 34	CC	Twenty-five percent, please, Bill.
03 08 39 44	LMP	Roger. Twenty-five percent.
03 08 40 52	CMP	Houston, Apollo 8.
03 08 41 07	CC	Apollo 8, this is Houston. Over.
03 08 41 13	CMP	Are you receiving our tracking data?
03 08 41 24	CC	That's affirmative, Jim. We are receiving.
03 08 41 29	CMP	Okay. Thank you.
03 08 41 33	CC	And also, Jim, we are - That last P27 we sent was for the LM state vector only, and it will require a VERB 47 ENTER to transfer to the CSM slot. Over.
03 08 41 48	CMP	Roger. Will do.
03 08 41 49	CC	Thank you.
03 08 45 39	LMP	Okay. We're dumping the waste tank now, Houston.
03 08 45 44	CC	Roger, Bill.
03 08 52 57	CC	Apollo 8, Houston. Over.
03 08 53 02	CMP	Go ahead, Houston.
03 08 53 04	CC	Roger. We've got 4 minutes til LOS, and everything is looking good down here.
03 08 53 13	LMP	Roger. How much longer do you think we have to go into battery charge there, Mike?
03 08 53 19	CC	I'll find out for you.
03 08 53 26	LMP	If you can wake up the ECOMM, why don't you have him ask the back room?

03 08 53 33	CC	Oh, you really know how to hurt a guy.
03 08 53 41	CC	Apollo 8, Houston. We estimate the charge will be complete in another 45 minutes. Over.
03 08 53 51	LMP	Okay. Thank you very much.
03 08 55 59	CC	Apollo 8, Houston. One minute til LOS, and standing by.
03 08 56 06	LMP	Okay. See you on the other side, Mike.
03 08 56 09	CC	Looking forward to it.
03 08 56 21	LMP	Me, too.

END OF TAPE

03 09 27 XX		BEGIN LUNAR REV 7
03 09 43 58	CC	Apollo 8, this is Houston. Over.
03 09 44 34	CC	Apollo 8, this is Houston. Over.
03 09 44 47	CDR	Houston, Apollo 8.
03 09 44 49	CC	Roger, Frank. Good morning. You're loud and clear, how me?
03 09 44 54	CDR	Loud and clear.
03 09 44 58	CC	Welcome back.
03 09 45 04	CDR	Thank you.
03 09 46 51	CC	Apollo 8, Houston. Over.
03 09 46 58	CDR	Go ahead, Houston.
03 09 46 59	CC	Roger. We have a request that Jim space his marks, his five marks out a bit more slowly. If possible, we would like to get a couple of them past the zenith. We're getting five of them with rather rapid spacing, and from the geometry viewpoint, it would be better if you'd slow them down a little bit and lengthened them out so as to include a couple of them past the zenith. Over.
03 09 47 29	CDR	Roger. We understand.
03 09 47 39	CDR	Houston, Apollo 8. That last set of marks are invalid. Disregard what Jim drew the last time.
03 09 47 48	CC	Roger. Understand the last set of marks are invalid. Over.

03 09 47 54	CMP	Roger. If you would correlate ... the last set.
03 09 48 03	CC	We have an awful lot of background noise, Jim. Could you say again, please?
03 09 48 12	CMP	Roger. I'm coming up on control voice 3. I tried to stick another control voice in between 2 and 3. It didn't do it, so I just took out our program, marked it down on the program.
03 09 48 25	CC	Roger. Understand you are coming up on 3.
03 09 52 03	CC	Apollo 8, Houston.
03 09 52 07	CDR	Go ahead, Houston. Apollo 8.
03 09 52 09	CC	Roger. On Jim's marks, we'd like to get spacing of approximately 30, 30 seconds between each mark. The last ones we are copying roughly 15 seconds between marks, and we would like to stretch it out even further if that is okay with you.
03 09 52 31	CDR	Alright.
03 10 02 18	CMP	Houston, Apollo 8.
03 10 02 22	CC	Apollo 8, Houston. Over.
03 10 02 27	CMP	Roger, Mike. I find that tracking is much easier using the sextant than the scanning telescope. You have finer control, and at these orbital speeds, resolved to medium seem to be the best combination.

03 10 02 46	CC	Roger, Jim. I copy that it's easier for you to use the sextant than the scanning telescope. It gives you finer control, and say again after that.
03 10 03 05	CC	Apollo 8, Houston. Do you read?
03 10 03 09	CMP	Roger. Did you copy?
03 10 03 12	CC	Roger. I copy that it's - tracking is easier using the sextant than the scanning telescope; it gives you finer control, and say again after that. Over.
03 10 03 26	CMP	And the combination of resolved and medium is perhaps the best combination of - combination of - speed low is too low; we can't catch up with the target.
03 10 03 39	CC	Roger. Understand that the best combination is resolved and medium. Low is just too low.
03 10 03 49	CMP	Roger.
03 10 13 33	CMP	Houston, Apollo 8.
03 10 13 36	CC	Apollo 8, Houston. Over.
03 10 13 41	CMP	Roger. I'm not too sure what happened that time, Mike. I was marking on the landing sites, using the code, and I kept getting a large trunnion for AUTO OPTICS. And I could see the target, or landing site was coming up, so I just went manually and marked and got the - the latitude and longitude were quite different from the nominal.
03 10 14 14	CC	Roger. We copy that, Jim.

03 10 17 20	CC	Apollo 8, Houston.
03 10 17 24	CDR	Go ahead, Houston. Apollo 8.
03 10 17 26	CC	Roger. We're checking into Jim's remarks on his P22; and in the meantime, I have your maneuver PAD's and map updates, at your convenience. Over.
03 10 17 41	CDR	Roger.
03 10 18 12	CMP	Go ahead with your data, Mike.
03 10 18 14	CC	Okay. And before that, we'd like to take the DSE away from you, please, for a while.
03 10 18 28	CMP	All yours.
03 10 18 30	CC	Thank you, and we'd like you to go to POO and ACCEPT. We have a P27 state vector update for you.
03 10 18 42	CMP	There's POO, and I'm going to ACCEPT.
03 10 18 46	CC	Thank you.
03 10 18 48	CMP	All yours.
03 10 18 55	CC	Which would you like first, the map update or the TEI 8?
03 10 19 02	CMP	The map would be fine.
03 10 19 07	CC	Okay. Map update: LOS 82:55:54, sunrise 83:05:49, prime meridian 83:11:38, AOS 83:41:43, sunset 84:18:45; remarks: control point 1 acquisition 83:07:39, control point 2 acquisition 83:20:21, control point 3 ACQ 83:41:51, B-1 acquisition 84:02:28. Over.

03 10 20 05	CMP	Roger. 82:55:54, 83:05:49, 83:11:38, 83:41:43, 84:18:45. CP-1 83:07:39, CP-2 83:20:21, CP-3 83:41:51, B-1 84:02:28.
03 10 20 29	CC	That's affirmative.
03 10 20 52	CC	Understand - -
03 10 20 53	CMP	- - for the TEI PAD.
03 10 20 56	CC	Roger. The TEI 8 PAD, SPS/G&N: 45701, minus 040, plus 157 085 18 1904. Are you with me so far? Over.
03 10 21 31	CMP	Roger.
03 10 21 33	CC	Okay. Plus 3195, minus 01267, plus 04716 179 008 001, not applicable, plus 00187 33552 311 33355 42 0909 252. Are you still with me? Over.
02 10 22 40	CMP	Roger.
02 10 22 43	CC	Okay. Picking up with the boresight star, it's old Dzuba who is the center star in the head of Scorpion; he's down 060, left 42, plus 0773, minus 16500 12982 36256 146 46 18. North set stars remain Sirius, Rigel, roll 129, pitch 155, yaw 010; four-quad ullage of 15 seconds, horizon on a 4-degree line at TIG, and requesting you zero the optics. Over.
03 10 24 03	CDR	Roger. Going to ZERO OPTICS.
03 10 24 14	CDR	Are you through with the computer now, Mike?
03 10 24 17	CC	It's your computer; P27 LM state vector in and verified.

03 10 24 26	CMP	Roger. We're going to put it in the CSM slot.
03 10 24 30	CC	Roger. That's affirmative.
03 10 24 38	CDR	Okay. TEI 8, SPS/G&N: 45701, minus 040, plus 157 085 18 1904, plus 33195, minus 01267, plus 04716 179 008 001, NA, plus 00187 33552 311 33355 42 09090 252, Dzuba down 060, left 4.2, plus 0773, minus 16500 12982 36256 1464618; Sirius, Rigel, 129 155 010, four-quad, 15 seconds, horizon 4 degrees at TIG.
03 10 25 36	CC	You keep good books; that's all correct.
03 10 25 42	CDR	Thank you.
03 10 26 44	CC	Apollo 8, Houston.
03 10 26 50	CDR	Go ahead, Houston.
03 10 26 52	CC	Roger. Some time back, we noted evidence of a restart in the computer and wondered if you had any remarks about it. Over.
03 10 27 00	CDR	I know it. Jim got screwed up on one of those programs. He's getting kind of tired here, and we got a RESTART and a couple of PROGRAM ALARMS. I don't know what he did.
03 10 27 12	CC	Roger, Frank. The main point is the computer is looking fine to us, now.
03 10 27 20	CDR	That's good.
03 10 27 23	CMP	Houston, don't believe all you hear up here.
03 10 27 28	CC	No, we have a filter, Jim, for that.
03 10 27 34	CDR	Thank you.

03 10 28 32	CC	Apollo 8, Houston.
03 10 28 37	CDR	Go.
03 10 28 39	CC	Roger. In some of Jim's previous comments about the limb brightness as the sun was about to come up has sparked a lot of interest down here. And we'd like to ask him if he gets a chance to notice again or perhaps he can recall, whether there were any changes in the appearance of the stars. Such as, did he notice any twinkling while this was taking place, and did he notice any narrow limb brightening within 10 to 20 seconds prior to the sun's rising? Over.
03 10 29 14	LMP	He'll be with you - he's doing a P52 now.
03 10 29 17	CC	Okay.
03 10 30 08	CMP	Houston, my comments concerning the sunrise was the comments above the terrain. There appeared what might be called diagonal light or light due to the haze or something like that. As the sun came above or before the sun came above the limb, definite rays could be seen coming from the other side. It was a uniform haze emanating from the center spot where the sun was going to rise, and this was something which I didn't expect.
03 10 30 42	CC	Roger, Jim. Understand. We copied that and just curious, and if you see it again whether you notice any stars twinkling or any additional information.

03 10 30 55	CMP	Will do. Won't have a chance until control point 1.
03 10 31 06	LMP	Actually, he doesn't want to pass out too much of that information. He wants to save it and write a paper when he gets back, Mike.
03 10 31 12	CC	Right. In German, probably, huh?
03 10 35 57	CDR	Houston, Apollo 8.
03 10 35 59	CC	Apollo 8, Houston.
03 10 36 04	CDR	Okay. What time is that TV, Mike, 85:37?
03 10 36 08	CC	85:37 to terminator, which is probably like 86:14.
03 10 36 20	CDR	Okay. Well, I don't know if we can go that long with it, and I'm going to scrub all the other experiments, the converging stereo or other photography, and we are a little bit tired; I want to use that last bit to really make sure we're right for TEI.
03 10 36 38	CC	Roger. I understand, Frank.
03 10 36 42	CC	A couple of miscellaneous items for you: we'd like for you to discontinue charging battery B at this time; we'd also like to get a cryo stir, 2 minutes on all four; and your UP TELEMETRY IU switch, put to BLOCK, please, and you are GO for the next lunar orbit.
03 10 37 08	CDR	Thank you.
03 10 37 10	CC	Roger.
03 10 40 10	CDR	Houston, Apollo 8.
02 10 40 14	CC	Apollo 8, Houston. Go ahead, Frank.

02 10 40 18	CDR	Roger. I want to scrub these control point sightings on this next REV, too, and let Jim take a rest.
02 10 40 25	CC	Roger. I understand.
02 10 40 30	CC	I understand you want to scrub control points 1, 2, and 3 on the next REV and the converging stereo on the following REV.
02 10 40 42	CDR	That's right. We're getting too tired.
02 10 40 44	CC	Okay, Frank.
02 10 41 39	CC	Apollo 8, Houston.
02 10 41 41	CDR	Go ahead.
02 10 41 44	CC	This REV coming up we would like to clarify whether you intend to scrub control points 1, 2, and 3, only, and do the psuedo landing site; or whether you also intend to scrub the psuedo landing site marks. Over.
02 10 42 01	CDR	We're scrubbing everything. I'll stay up and try and keep the spacecraft vertical and take some automatic pictures, but I want Jim and Bill to get some rest.
02 10 42 10	CC	Roger. Understand.

END OF TAPE

03 10 51 42	CC	Apollo 8, Houston. Four minutes to LOS. You have control of the DSE now, and all your systems are looking good.
03 10 51 53	CDR	Thank you very much, Mike.
03 10 51 55	CC	You bet.
03 10 52 03	CDR	Lovell is snoring already.
03 10 52 06	CC	Yes, we can hear him down here.
03 10 54 35	CC	Apollo 8, Houston.
03 10 54 39	CDR	Go ahead.
03 10 54 41	CC	We have 1 minute to LOS, Frank. You can terminate stirring up your cryos any time, and we agree with all your flight plan changes. Have a beautiful backside, and we will see you next time out.
03 10 54 57	CDR	Thank you.
03 10 54 59	CC	Roger.
03 11 26 XX		BEGIN LUNAR REV 8
03 11 42 18	CDR	Houston, Apollo 8.
03 11 42 21	CC	Apollo 8, loud and clear.
03 11 42 24	CDR	Roger.
03 11 53 44	CC	Apollo 8, Houston.
03 11 53 49	CDR	Go ahead, Houston. Apollo 8.
03 11 53 51	CC	Roger, Apollo 8. Couple of notes for you: on the P52 you are coming up to on this REV, we've looked at your state vectors and all your information. The platform looks good, and it appears

that it is your option if you would like to bypass this P52, your platform will still be good at the following TEI pass. And we would like to have your PRD reading, and I guess we are behind the sleep summary. Over.

03 11 54 28	CDR	Okay. Jim and Bill are both resting now. I had about 3 or 4 hours earlier today.
03 11 54 41	CC	Roger. Copy.
03 11 54 47	CDR	This PRD now reads 144.
03 11 54 50	CC	Copy, 144. And we have an update ready to go into your computer for the state vector if you want to go to P00 and ACCEPT.
03 11 55 07	CDR	P00 and ACCEPT.
03 11 55 09	CC	Thank you.
03 11 59 52	CDR	Jerry, I'm standing by to copy the TEI 9 PAD.
03 12 00 14	CC	Okay, Apollo 8. We have completed with the computer. You can use the VERB 47 to transfer, and I have the TEI 9 PAD.
03 11 00 26	CDR	That's Ken, isn't it? Just a minute, and I'll take care of it.
03 11 00 30	CC	Roger.
03 11 01 08	CDR	Okay. I went to P00 and then VERB 47, and I'm ready to copy.
03 11 01 12	CC	Okay. Do you have it in BLOCK?
03 11 01 17	CDR	Say again.
03 12 01 18	CC	I say, do you have the UP TELEMETRY in BLOCK?
03 12 01 24	CDR	Roger.

03 12 01 26 CDR Okay. This PAD is a TEI 9, SPS/G&N: 45597, minus 040, plus 157 08719 1820, plus 34188, minus 01353, plus 00780 180 008 001, November Alfa, plus 00187 34223 313 34021 42 0898 253 033, down 131, left 28, plus 0758, minus 16500 12987 36277 14648 16; primary star Sirius, secondary Rigel, 129 155 010; four quads, 15 second, ullage, horizons on 1.2-degree window line at T minus 3; use high speed procedure with minus Mike Alfa. After looking at the burn information from your previous SPS burns, it appears that the engine performance should give us a 3-second burn time, longer than what you have on the PAD. The PAD number should correspond with what you get out of the computer. So we have not factored this into the past data; however, you can anticipate the engine for a normal DELTA-V to give you a 3-second - 3.7-second burn in excess of the computed times. Over.

03 12 05 52 CDR Roger. Thank you.

03 12 06 02 CDR TEI 9, SPS/G&N: 45597, minus 040, plus 157 08719 1820, plus 34188, minus 01353, plus 00780 180 008 001, NA, plus 00187 34223 313 34021 42 0898 253 033, down 131, left 28, plus 0758, minus 16500 12987, plus - or 36277 146 4816;

and that's Sirius and Rigel 129 155 010, four jet, 15 seconds, 1.2 degrees on the window at T minus 3, high speed minus MA, engine 3.7 seconds longer than given.

03 12 07 11 CC That's affirmative, Apollo 8. And when you get around to it, if you would like for us to dump your tape, we can do that when you get on the high gain.

03 12 07 25 CDR Roger.

03 12 08 06 CDR Okay. Should have it on the high gain now, Houston.

03 12 08 10 CC Roger. And we're going to go ahead and dump the tape.

03 12 08 20 CDR Roger.

03 12 08 42 CDR Ken, will we get the real TEI PAD the next time around now?

03 12 09 04 CC Apollo 8, we'll have one for you the next time around, and we'll update it if necessary on the following REV.

03 12 09 14 CDR Okay.

03 12 11 34 CDR Houston, Apollo 8.

03 12 11 36 CC Go ahead.

03 12 11 40 CDR Do you have any idea why quad B seems so much lower in quantity than the other three quads?

03 12 11 47 CC Stand by.

(GOSS NET 1)

03 12 15 48	CC	Apollo 8, Houston.
03 12 15 52	CDR	Go ahead.
03 12 15 54	CC	Okay. It looks to us like, although we're reading out the same thing you are on the quad quantity, using the computer program and all of the correction factors that are in there, it looks like all four of your quads are very close. In pounds, it looks like you have, for example, 193 pounds in quad A and 189 in B, 200 in C, and 190 in Delta. And the difference that you read on the gage is attributed to the fact that you don't have all of the correction factors in there. This ground calculation has an accuracy of about plus or minus 6 percent, and the best you can do on board, even using your chart, is plus or minus 10 percent. Over.
03 12 16 44	CDR	Thank you.

END OF TAPE

03 12 24 35	CC	Apollo 8, Houston. The tape recorder is back to you.
03 12 24 42	CDR	Thank you.
03 12 26 54	CC	Apollo 8, Houston.
03 12 27 00	CDR	Go ahead.
03 12 27 02	CC	Okay. We've just finished looking at all your systems and all the trajectory information, and you have a GO for another REV.
03 12 27 13	CDR	Thank you.
03 12 27 41	CDR	I understand we're GO for REV 9.
03 12 27 47	CC	That's affirmative, 8.
03 12 29 01	CDR	How's the weather down there, Ken?
03 12 29 03	CC	It's really beautiful; loud and clear and just right in temperature.
03 12 29 12	CDR	How about the recovery area?
03 12 29 14	CC	That's looking real good.
03 12 29 19	CDR	Very good.
03 12 29 24	CC	Yes. They told us that there is a beautiful moon out there.
03 12 29 32	CDR	Now I was just saying that there's a beautiful earth out there.
03 12 29 36	CC	It depends on your point of view.
03 12 29 40	CDR	Yes.
03 12 29 54	CC	If you're looking for things to do up there, Frank, you might hit that BIOMED switch over to the left position.

03 12 30 02	CDR	Okay.
03 12 30 42	CDR	Are you ready?
03 12 30 44	CC	All set.
03 12 30 46	CDR	Five, four, three - say again.
03 12 30 53	CC	We've got the computers waiting.
03 12 30 55	CDR	Ken, are you ready? Five, four, three, two, one.
03 12 31 00	CDR	MARK.
03 12 34 07	CDR	Houston, Apollo 8. How do you read?
03 12 34 09	CC	I'm reading you weak but clear, Frank.
03 12 34 16	CC	How about this antenna? Is that any better?
03 12 34 18	CC	It's a little louder.
03 12 34 26	CDR	Okay.
03 12 39 45	CDR	Hey, Ken, how did you pull duty on Christmas Eve? It happens to bachelors every time, doesn't it?
03 12 39 52	CC	I wouldn't be anywhere else tonight.
03 12 42 08	CDR	Ken, how's the ... tracking on this lunar orbit coming out?
03 12 42 27	CC	Okay. Frank, it's looking like it's coming right down the pike. It's doing just what it is supposed to, and apparently, all our computer programs have got the right numbers in them because they're predicting where you're going.
03 12 42 42	CDR	Have they covered any of these anomalies due to high spots?
03 12 42 48	CC	Roger. They're detectable, but they're not changing things encugh to be anything more than - of interest.

03 12 42 58 CDR Fine. Hope they are as good with the corridor as they were with the LOI. That was beautiful.

03 12 43 03 CC It sure was. That's - that is textbook all the way.

03 12 44 24 CC Apollo 8, Houston.

03 12 44 29 CDR Go ahead.

03 12 44 31 CC Okay. We're about - inside 10 minutes till LOS. We'll be picking you up again at 85:40, and we'll have all of the TV types' information standing by. In the event that the situation develops again, for pointing accuracies, if I see anything that looks like a terminator or anything of that nature, I'm going to call the dark side of it 12 o'clock, and use that as a reference system, and we'll try that. If that doesn't dope out any problems with camera pointing, why I may try - call for a plus pitch, and then I'll just correct what I see to account for it.

03 12 45 16 CDR Roger. We're not going to use the telephoto lens. I don't believe we'll be able to get a picture of the earth. It's going to have to be the terminator, the lunar surface. I'm looking at the earth right now; and we won't see it again during that period.

03 12 45 31 CC Okay. Real fine then. And next time around, why, we'll take an extra special look at all of the parameters; we'll have our TEI PAD for you. And

we'll use the last REV for a real good hack on all systems. I'll give you a rundown by system of all things we see and where they stand.

03 12 45 55	CDR	Okay. Fine.
03 12 50 15	CC	Apollo 8, Houston. We're approaching 4 minutes to LOS. All systems are GO.
03 12 50 25	CDR	Roger. Thank you.
03 13 25 XX		BEGIN LUNAR REV 9
03 13 42 56	LMP	Houston.
03 13 42 58	CC	Loud and clear and an initial look at your systems are good.
03 13 42 59	LMP	Houston, Apollo 8. Over.
03 13 43 03	CC	We've got a picture, Apollo 8.
03 13 43 07	LMP	Roger. We've got the T - Roger. We've got the TV ...
03 13 43 13	LMP	How does the picture look, Houston?
03 13 43 16	CC	Loud and clear.
03 13 43 21	LMP	The TV look okay?
03 13 43 23	CC	That's very good.
03 13 43 28	CMP	Welcome from the moon, Houston.
03 13 43 33	CC	Thank you.
03 13 44 00	LMP	Houston, you're seeing a view of the earth taken below the lunar horizon. We're going to follow a track until the terminator, where we will turn the spacecraft and give you a view of the long shadowed